



Trove: The first year

January 2010 - January 2011



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1. Foreword

[Trove](#) has achieved recognition as an exemplary search service for finding and getting Australian information in a very short time. It is now embedded in the Australian information landscape. Australians can easily explore the richness and diversity of Australia's cultural heritage online, for free, in a simple search interface. Over 118 million resources have been aggregated from over 1,000 Australian organisations. This figure continues to grow which is a testament to the strong spirit of collaboration and information sharing in Australia. Helping Australians, especially those living in remote areas, to access information about their country and their heritage is vitally important. Providing tools for Australians to enrich the data and add their own context is equally as important. Trove is now a trusted search and collaboration tool that has the potential to grow, develop and evolve even further to meet its users' needs.

During Trove's first year of operation the service has undergone rapid changes and a high level of development in response to user feedback. We have extensively marketed the service and reached out to our users with social engagement activities. Our users have developed their own communities both with each other and with us, particularly the online newspaper text correctors. Trove's content has grown and its usage has increased. Trove now has a dedicated following of more than three million Australians.

I would like to acknowledge the tremendous hard work and creative thinking of the many staff at the National Library who have been involved in the inception and implementation of Trove over the last eight years, and who have helped us to reach this point today. Without the commitment and support of the [National State and Territory Libraries of Australasia](#) (NSLA) the vision of having a 'Trove' would not have been possible. Libraries and librarians who have collaborated and participated in Trove have demonstrated their ability to adapt to and meet the needs of information seekers in a changing and Google-centric environment. Users who have participated in Trove have demonstrated their willingness to add value to library services and data. User activities made a significant and pivotal difference to the development of the service and the richness of the data within it. Our users have been and continue to be our source of inspiration and our most significant information innovators.

STRATEGIC DIRECTIONS



2. Strategic Directions

Trove is an outcome of The National Library of Australia's [Strategic Directions 2009 – 2011](#) which are:

1. 'We will collect and make accessible the record of Australian life...We will explore *new models* for creating and sharing information and for collecting materials, including *supporting the creation of knowledge by our users*'
2. We will meet our *users' needs* for rapid and easy access to *our collections and other information resources*.
3. We will collaborate with a variety of other institutions to *improve the delivery of information resources to the Australian public*.

The [Trove Strategic Plan July 2010-June 2012](#) outlines strategic tracks for the next two years:

- Expand and Enhance Trove (new content, new features).
- Encourage a high level of usage of Trove (marketing and promotion).
- Develop the communities of Trove contributors (engage).

3. Expand and Enhance

3.1. *Development*

Released as a Single Business Discovery Service (SBDS) prototype in May 2009, the system was subsequently branded as 'Trove' version 1 on 30 November 2009. Trove was fully resourced as a core library service in January 2010 when the Trove Manager and new team members were appointed.

Trove support staff consisted of the Trove IT team (five people) who had primary responsibility for maintenance and development of the system, and the Trove business team (five people) who had primary responsibility for the service functions, contributors and harvesting of data. The teams worked closely together under the direction of the Trove Board, which was chaired by the Assistant Director-General for Resource Sharing and Innovation.

Trove had a program of rapid agile development with upgrades every two to three weeks in the first year of service with a total of seventeen [new releases](#) from January 2010 to January 2011. Many of the developments were driven by user feedback. It was important to be able to respond to, and implement changes in a timely way to retain the continued support of users and librarians in the innovative new service. The team was not able to undertake as much usability testing in the period as it would have liked, nor fully implement all the suggested outcomes of usability testing in the period. More work on this is planned for 2011. Usability testing and an easy intuitive user interface were considered very important to the success of Trove. This was because Trove is an aggregator of content which means that most of the content is already available in other services (with the exception of Australian Newspapers), so if the interface is not really good users may simply go elsewhere to find and get their content.

Significant development work achieved in the period included addition of new features such as lists, alerting to new content, advanced search forms, search by contributor, public statistics, a user forum, view recent user interactions, send Trove links to social media tools, buy newspaper pages, cite in Wikipedia style, and full text indexing of finding aids and transcripts. Enhancements were made to the home page, 'get' screens (work and version level), results list, register and login process, user profiles, data mappings to zones and facets, library profiles, commenting and tagging features and the Help, FAQ and search tips. Trove users and the business team provided feedback to the Trove IT team during the development process. Over two hundred desirable enhancements were identified in this process, none of which could be implemented in the period with the resource available. This work is now unscheduled but will be reviewed in 2011.

EXPAND AND ENHANCE - MIGRATE



Development work was undertaken on the NLA harvester to increase its flexibility and robustness so that it could better meet the needs of the Trove business team and contributors. Methods of data contribution were reviewed and expanded so that more content could be harvested and contribution processes were easier for contributors. New methods included data dumps, an Application Programming Interface (API) and via RSS feeds.

Major infrastructure work was undertaken between November 2010 and January 2011 to improve performance, scalability and robustness of Trove. This was in particular to address the migration of the Australian Newspaper service load into Trove. Unfortunately during this period Trove had many unexpected outages and was unreliable, resulting in a noticeable dip in usage.

The Australasian Digital Theses (ADT) service requested some work to be undertaken in Trove so that the ADT service could be de-commissioned and Trove offered as an alternative discovery service. This work was undertaken.

There is a need to develop an API for Trove so that data aggregated in Trove (particularly Australian Newspapers) can be shared and re-purposed in the community. Unfortunately the API development could not be undertaken in the period; however an API scoping exercise was undertaken to establish needs.

In October 2010 work began to enable affiliated library users authenticated access to their subscription content via Trove. By working with subscription vendors and libraries and through enhancements to the Australian Libraries Gateway (ALG) it is intended to deliver a proof of concept via Trove in early 2011. This will significantly increase access to digitised journal content.

3.2. *Migration of Discover Services into Trove*

Since release of version 1 of Trove, all of the content of the Library's existing discovery services has been harvested into Trove. This included Libraries Australia free search, the Register of Archives and Manuscripts, Australian Research Online, Australia Dancing, Picture Australia, Music Australia, PANDORA and Australian Newspapers. The Trove development plan includes the de-commission of all these services as standalone services, with their essential features being replicated in Trove. Prior to 2010 Libraries Australia free search and the Register of Archives and Manuscripts were de-commissioned and their features and content transitioned into Trove. During Trove's first year both Australian Research Online and the Australian Newspapers service had features and content transitioned into Trove before being de-commissioned. Scoping work also began for Music Australia and Picture Australia.

3.3. *Grow Content*

Trove harvests content from contributors which is displayed in the results 'zones'. The amount of new content increased in the period from 80 million to 118 million. This was due to the addition of new contributors and existing contributors making more content available. Significant increases in data from existing contributors were from Libraries Australia (bibliographic records), and the Australian Newspapers Digitisation Program (Australian Women's Weekly and newspapers).

Significant new data contributors that the Trove team worked with in 2010 were the Australian Broadcasting Commission, the National Film and Sound Archive, the Powerhouse Museum and the Australian Institute of Aboriginal and Torres Strait Islanders Studies. Each of these contributors has over half a million items unique Australian items to contribute. They are all expected to complete the data contribution process in early 2011. The Trove Memorandum of Understanding for new contributors was modified based on contributor feedback.

One of the largest digital sources harvested is OAIs ter but due to changes in ownership and data IDs this source was not successfully re-harvested into Trove in the period. This will be undertaken in 2011 and is expected to boost content by millions. There were also issues getting access to digitised books not in copyright in Australia from the Hathi Trust and problems identifying accessible digital books in Open Library, and these issues are being worked on. Overseas sources such as these have valuable Australian resources that are free and fully digitised. They enhance the depth and coverage of Trove.

Trove also displays links to content which sits outside Trove. This appears to the left of the 'zone' box labelled 'From other websites'. This is brought in by use of APIs. In 2010 the Wikipedia, Amazon, Flickr and Google Video (Youtube) APIs were added as search targets to appear in this area.

Australian booksellers were encouraged to have a presence in Trove under the 'buy' tab and by the end of 2010 78 retailers were activated in Trove.

PROMOTE USAGE

- STRATEGY



4. Encourage a high level of usage of Trove

A Trove Communications and Marketing Strategy was developed and implemented for the new service in February 2010. The Strategy was endorsed by the Trove Board, the NLA Corporate Management Group and the NSLA Re-Imagining Libraries group.

The primary aims of the marketing strategy were:

- To promote awareness of the Trove service and collections within Trove to:
 - The general public of Australia and relevant interest groups
 - Libraries in Australia
 - Other organisations both in Australia and overseas.
- To promote the functions of the service and the collections within Trove to:
 - Find and get information
 - Interact with information (tagging, commenting)
 - Contribute information and knowledge (images, correct data)
 - Build communities.
- To encourage libraries and other relevant organisations to contribute data to Trove to build the body of content.

The secondary aims were:

- To enhance the reputation of Australian libraries nationally and internationally through surfacing of unique Australian content.
- To demonstrate the current relevance of libraries in a changing society.
- To demonstrate innovation activities in libraries especially within the Web 2.0 community engagement context.
- To enhance and expand the understanding and appreciation of libraries' roles and achievements in the wider online environment.
- To promote the NSLA's high level vision of collaboration at the state and national level.
- To demonstrate active collaboration with a national service.
- To gain further support for Australian libraries from spheres of influence including key stakeholders, decision makers, the cultural heritage sector and the wider community.
- To raise the profile of all Australian libraries and to create greater awareness and visibility of their collections as important information sources for the whole nation.
- To increase usage of libraries' collections.
- To attract new users to library services.
- To showcase and promote specific collections/items within the service.

Other outcomes of the strategy were the development of a [Trove marketing page](#) on the Trove website. Two key documents are: '[How To Utilise Trove In Your Organisation](#)' by Debbie Campbell and '[Marketing Trove: Guidelines for Contributors](#)'.



PROMOTE USAGE - PROMOTIONS

4.1. *Trove Promotional Items*

The [Trove logo](#) and homepage designs were finalised in February 2011 so that Trove marketing and promotional materials could be created and circulated. Promotional materials included a Trove flyer, bookmark, poster, button 'Ask me about Trove', mouse mat, t-shirt, notebook and pen, usb drive, and banners.

A Trove poster was sent to every school in Australia (11,000). Bookmarks were sent to Australian public, state and territory libraries (100,000). Mouse mats were placed in NLA reading rooms (150). Front line National Library staff were given Trove T-shirts (100). Remaining t-shirts were sold to librarians at the NLA Innovative Day in March and to the public via the [NLA online shop](#). The other promotional items were sent out on request and used at conferences over the year. A Trove banner was available for loan for conferences at which the NLA could not attend.

There was a NLA/Trove stand at the following library conferences/events which had a total audience reach of 2,500:

February 2010:	VALA, Melbourne
May 2010:	Library and Information Week, NLA
July 2010:	Public library conference, Albury
Sept 2010:	ALIA conference, Brisbane
February 2011:	Information Online conference, Sydney

4.2. *Advertising*

There was a limited budget for paid advertising. The three audiences targeted were librarians, genealogists and National Library users. Quarter and half page adverts were placed in hardcopy magazines and journals in 2010 which reached an audience of over 200,000.

PROMOTE USAGE - MEDIA



2010	Title of Magazine	Circulation
February	Woroni (ANU magazine)	3,000
March, June, December	National Library of Australia Magazine	1,000
March	National Folk Festival Program	15,000
March, December	The Ancestor (Quarterly Journal of the Genealogical Society of Victoria)	6,400
March, September	The Ancestral Searcher	
May	Panorama, Canberra Times	150,000
June, September, December	Incite (ALIA Magazine)	6,000
August	WQ Magazine (Queensland Writers)	2,300

4.3. *Media coverage*

The marketing campaign for the first year resulted in good media coverage with two planned peaks – one in April 2010 and one at the end of the year. Both the ABC and Fairfax picked up news stories, which meant the audience reach was significant. Trove and the digitised Newspapers zone were featured in the media (radio, newspapers, TV, internet news site, magazines/journals) eighty times. Three media releases were written for the planned peaks: the newspaper text correctors' awards in January 2010, Trove in April 2010 and the availability of the Australian Women's Weekly in December 2010. The media picked up the first two releases. The focus was on the existence of Trove and Australian Newspapers in April, whilst later in the year interest in the crowdsourcing activity with text correction volunteers, followed by the use of social media to link together current news with historical items in Trove.

Some of the stories were also picked up internationally in UK, USA and China. The Trove Manager was the public face of Trove and gave interviews and quotes for radio, TV, newspapers and magazines. In addition articles were written for publication in professional journals. The media coverage resulted in innumerable Trove and digitised Newspapers mentions in personal blogs and tweets. The most effective coverage of the year was the [ABC TV news item](#) on Trove in April 2010 which remained available as an online video clip and an [article in the Sydney Morning Herald](#) on the Australian Newspapers text correctors in February 2011. Both of these caused a significant spike in Trove usage.

4.4. *Presentations*

During the first year 100 presentations were given on Trove and Australian Newspapers throughout Australia. The aim was to raise awareness about the existence, usefulness and development of Trove. More than half of the presentations were undertaken by the Trove Manager. During the year researchers, members of the public, and other library staff were strongly encouraged to speak about Trove at relevant events, with presentation preparation support being given by the Trove Manager. Several Trove users, particularly family historians and the top newspaper text corrector Ann Manley, gave public talks focusing on how Trove had helped them in their research.

The most popular public talks of the year were "[Building our Digital Nation](#)" given at Mosman Library, which reached an audience of 800 people, and "Trove: Finding Information just got easier for historians" given at Richmond to the Royal Australian History Society. The most popular papers given to librarians were at the ALIA conferences "[Trove: More than a Treasure? How finding information just got easier](#)" and "[Trove: Find and Get – making 'getting' better](#)".

The presentations in the first year had an audience reach of just over 11,000 people. The most popular presentations were loaded to a [slideshare account](#).

4.5. *Usage*

Trove had already established a user base of one million people in the first six months. When the standalone version of Australian Newspapers was merged into Trove the number of users significantly increased up to three million. Throughout the year usage of Trove and interactive features steadily rose, with peaks after media events. The number of Trove users for the next three to four years is expected to rise to at least ten million (roughly half of the Australian population). This is based on the following statistics: in 2009 NSLA recorded eleven million people through library doors; in 2006 half of the population belonged to a library and sought information on a regular basis (Australian Bureau of Statistics); in December 2009 two-thirds of Australian households had fast broadband access at home (Australian Bureau of Statistics).

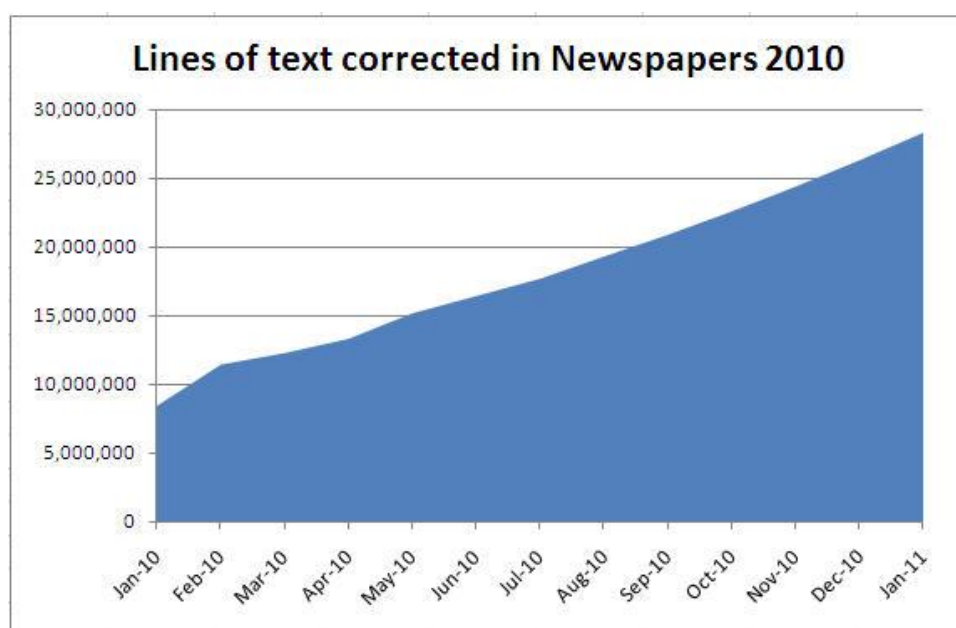
Trove daily visits January 2010 to January 2011



PROMOTE USAGE


- STATISTICS

Trove Vital Statistics	January 2010 to January 2011
Total unique users	3.2 million
Total registered users	27,400
Total visits	5.6 million
Total pageviews	54.9 million
Highest number of visits per day in period	29,500
Highest number of pageviews per day in period	556,000
Top traffic source	Google (67%)
Top location of users	Australia (70%)
Total content	117 million



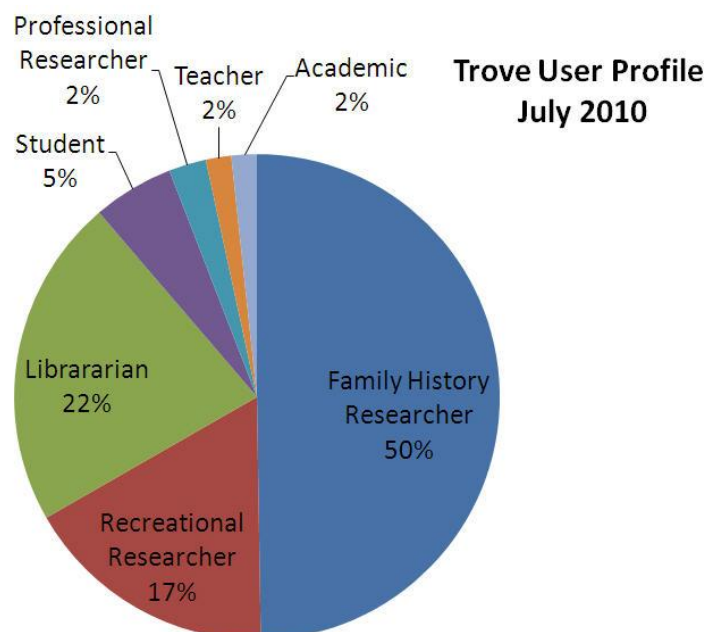
In July 2010 a survey was undertaken on Trove to find out more about the user base. This was primarily to help with the usability testing. The results show that the majority of users consider themselves to be researchers, with a significant portion interested in family history. Librarians also featured and many of these were acting as intermediaries on behalf of users. The survey showed there was very little use of Trove by educators, or primary or secondary level students. This audience group has not yet been targeted in the marketing strategy. The survey results may not be 100% accurate since they only reflect those users who chose to fill out the survey.

NATIONAL LIBRARY OF AUSTRALIA trove.nla.gov.au



PROMOTE USAGE

- SEARCHERS



Trove enables anyone to view the [search terms in recent searches](#). The most popular search terms do not vary much throughout the year and reflect the heavy usage of the digitised Newspapers zone. They included people’s names (especially William, George, Henry and Smith), births, deaths, family notices, shipping, cricket and railways. In January 2011 there were three significant spikes in usage, one caused by new content and the other two by Australian news items. The Wordle below shows these terms: ‘Lionel Logue’ (starring in The King’s Speech movie), 1974 Brisbane Flood (as a comparison to current floods) and ‘knitting patterns’ now available in the recently digitised Australian Women’s Weekly.



DEVELOPING COMMUNITIES - ENGAGE



5. Developing Communities (Engage)

5.1. *Data Engagement*

Several features enabling users to engage with data are available in Trove. Activity around these features was highlighted on the Trove homepage below the search box, and could also be accessed by users in their Trove profile. In addition the [steadily increasing statistics](#) were publicly available.

Newspaper text correction

The feature which generated the most activity and the highest profile was 'fix this text' for the electronically translated Australian Newspapers text. The number of new text correctors and text corrected rose steadily throughout the year with the [text correctors' hall of fame](#) remaining an important feature for this community. By the end of the year on average two million lines of text were being corrected per month by over thirty thousand users. A total of thirty million lines had been improved by January 2011. The newspaper text correction began in August 2008 before the existence of Trove. The history and rankings were rolled into Trove in the migration of the Australian Newspapers service. The top five text correctors had each corrected more than half a million lines. In January 2010 these text correctors received Australia Day Achievement Awards from the National Library of Australia for their online volunteer work. This was subsequently reported widely in the media. At the event the National Library Choir sang a song titled 'Don't stop correcting!' to the awardees who also received a special behind the scenes tour.

Tagging and Commenting

The ability to add tags was pioneered in the Australian Newspapers service and between 2008- 2010 newspaper users added over 500,000 tags to newspaper articles. These were migrated into the Trove service. At the end of the year a total of 750,000 tags had been added to newspaper articles and other content in Trove. Likewise the ability to add comments was pioneered in the Australian Newspapers service and at the end of the year nearly [18,000 comments](#) had been added to items, of which more than 13,000 belonged to newspaper articles. Users added comments which generally gave more information about people or events in the items.

No moderation of text correction, tags or comments took place. However in early 2010 all existing comments were reviewed and this continued throughout the year. At the end of the year 114 comments had been removed since they were spam, seventy one had been removed since they were derogatory and breached the Trove Terms of Use. (All 71 were posted by the same user). Development work was undertaken to make it easier for Trove team members to remove comments swiftly.



DEVELOPING COMMUNITIES - ENGAGE

Lists

A new feature implemented in 2010 was [‘Lists’](#). These gave the ability for both users and contributing organisations to group together, showcase, and add context and detail to items. The list feature was released at a very early stage of development. Uptake and feedback on functionality was swift, so development on lists continued throughout the year. Over 3,000 lists were created by individuals and organisations in the first year.

Photo Contribution

Public photo contribution to Trove was implemented by piggy backing on the current Picture Australia-Flickr arrangement. The scope of the image contributions was extended to include scanned historic family photos, objects of significance, and Australian fauna and flora. There was no significance difference in the level of contributions, perhaps because this feature was not promoted extensively and did not show as a user activity on the home page of Trove. Contributions continued to average 2,000 per month.

Linking to Trove resources

In 2010 the ability for Trove users to add a Trove persistent identifier with one click to their Twitter, Facebook, Digg, Connotea or Twitter account was implemented.

In response to the Australian Wikipedian community, the Wikipedia citation style was added to the ‘cite this’ box in the digitised Newspapers zone in Trove. This made the citation process significantly easier for Wikipedia article editors who wanted to add links to newspaper articles in a Wikipedia page. For example to the article on Lionel Logue (The King’s Speech) and the history of Brisbane Floods (which both caused spikes in Trove usage).

Alerting to new content

Alerts to new content were firstly added to the Australian Newspapers zone where a user could be alerted to new titles, new issues or individual articles marked as ‘coming soon’. This was viewed as a significant enhancement by Trove users. At the end of the year the functionality to be alerted to new content in any zone that matched specific keywords was also implemented.

5.2. Social Engagement

To support social engagement activities, forum software was assessed, selected, implemented, and then publicly released in June 2010. Trove forum Guidelines were developed which seeded the National Library’s new [Social Media Policy](#). Training was given to Trove forum moderators. The Trove team began to post in the forum on relevant topics and respond to users. The [Trove forum](#) was primarily driven by the need for newspaper users and text correctors to communicate with each, and this forum board had the most activity. More than 250 messages were posted in the newspaper board in the first six months with the highest viewed message (1,500 hundred views) being titled ‘what do

DEVELOPING COMMUNITIES - ENGAGE



you choose to correct?’ The draft guidelines for text correction, initiated by the top text correctors, were also posted to the forum for the community to collaboratively develop. The forum gave users the ability to show a photograph of themselves, share their interests and decide whether or not they would like to be contacted by other users. Their forum profile complemented their Trove profile which recorded their data engagement activity. Parts of a Trove user profile are visible to other users such as the history of recent text corrections, tags, comments and lists. The Trove user profile was enhanced so that a user could see their overall ranking in the text correctors’ community. This was important for users that did not make it into the monthly hall of fame. The top correctors ranking, and the monthly hall of fame were transferred into Trove with the Australian Newspapers migration. The Trove forum also enabled users to set up ‘groups’ which they could create and moderate themselves. This feature was utilised by groups interested in local history and genealogy.

A social engagement strategy was developed in June 2010 with the aim of promoting Trove and its content to users. A six month pilot began in November 2010. The pilot involved set up and use of a [Trove blog](#), the Trove forum, a [Trove Twitter](#) account, a Trove Facebook account, and a [Trove YouTube](#) account. The Trove team sent out daily tweets which were largely focused on connecting current news events to relevant or historical items in Trove. Blog posts on Trove content were placed weekly. The highest viewed blog was titled ‘A handmade Christmas’ (676 views).

Screen casting software was trialled. Seven ‘[Trove: How to...](#)’ screen casts were created with free software. These were made available on the Trove YouTube channel.

A two minute [Trove promotional video](#) was created and this was also made available on the Trove YouTube channel.

The Trove team answered over 2,500 enquiries placed through the ‘contact us’ form. Over 300 feedback items were placed through the public feedback form between January and June 2010 and these were assessed. (The form was closed in June and feedback could be given via the ‘contact’ form).

5.3. Feedback from the community

"Trove is easy to use, beautiful to look at and a wonderful resource. I am so excited!"

"Trove is a brilliant example of context in motion."

"Trove is marvellous for family history and especially if you are living in a rural area."

"It really means something to live remotely and still have such easy access to all sorts of items, plus a simple search interface. I am near Alice Springs."

"I'm now a big fan of Trove. I can see many happy hours ahead dipping into it."

"Fantastic resource – people say that public sector institutions are slow to innovate – it's always been rubbish and this website is living proof of that. Thank you."

"Trove is a hit with me. A great resource. The ease of access to past newspaper records is a boon. Well done!"

"Trove has given me the opportunity to add and correct information to some of the photos of my family held by the Lake Macquarie Library."

"I was pleasantly surprised to find Trove which allowed me to access photos that have been stored by the John Oxley Library and newspaper accounts of family members going back to the 1870's from the Sydney Morning Herald and the Brisbane Courier Mail."

"I just appreciate so much being able to quickly see which Queensland Library has the item I seek."

"Trove is well worth a visit! I was 'lost' there yesterday for several hours and will now be a frequent visitor. I even found a newspaper item about the death of a 3 x great-grandfather in one of the NSW gold rush towns in 1866."

"You cannot even begin to understand the rapture of using Trove. I can search on a single word over a span of years and Trove will find it. I don't have sufficient superlatives to render my complete and utter contentment with what you have achieved. Well done!"

"I'd just like to congratulate all involved with 'Trove' on a fantastic job – was a website ever better named?! I've had a lot of fun and more 'wins per click' for my family history wanderings on this site than anywhere else on the internet."

SNAPSHOTS 2010



At a conference



Library Week 2010



Trove Flyer



Trove 1st birthday December 2010





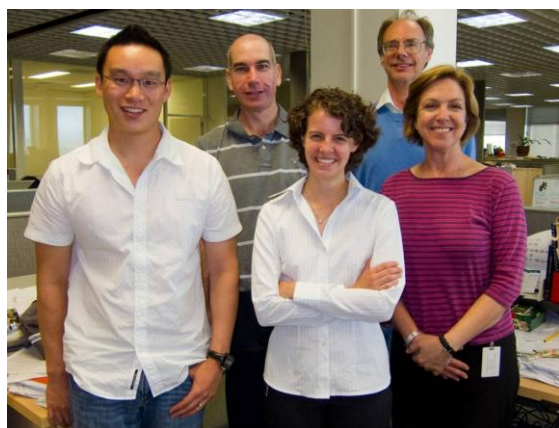
SNAPSHOTS 2010



Top text correctors awarded January 2010



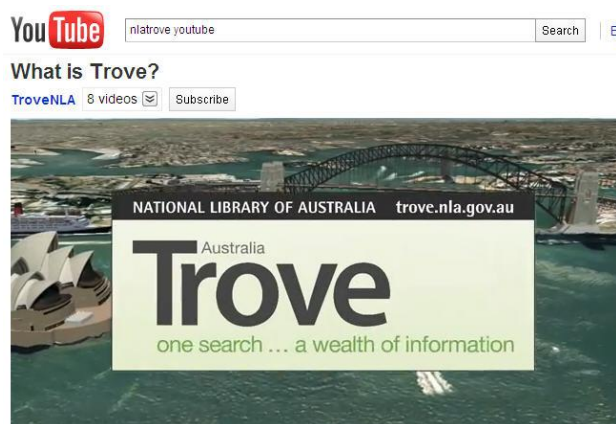
NLA Choir sing to text correctors



Trove IT Team



Trove workshop



Trove Video



Trove Promotion